Outline of Banking History

From the First Bank of the United States Through the Panic of 1907

By B. H. Beckhart
Columbia University

THE United States was particularly fortunate in having as its first Secretary of the Treasury a veritable genius, whose program of fiscal reform quickly placed the new republic on a sound financial basis. As an essential part of his program, Hamilton urged the establishment of a National Bank in a report to Congress, dated December 13, 1790. Since the economic significance of banks was then but crudely understood, Hamilton, in this now famous document, first indicated the numerous advantages resulting from banking in general and from a National Bank in particular, taking occasion to dispel some of the current erroneous ideas on the subject.[1] After showing that no one of the three banking institutions[2] then in existence could be suitably employed as a National Bank, he laid down in great detail the plan for the new institution.[3] The act chartering the bank modelled upon this plan was signed by the President on February 25, 1791.[4]

The entire capital was subscribed within two hours on the day[5] the subscription books were thrown open, and the Bank was ready to begin business on December 12, 1791, with Thomas Willing as president.[6] From the very outset, the Bank proved to be a great success, in providing the country with a sound and elastic currency, in supplying the needed banking facilities, and in preventing any excess issue of state bank notes by having such state notes as were in its possession redeemed. In the performance of its fiscal functions, it transferred government funds and provided a safe depositary for them; it also helped to collect the revenues and provided the bullion needed by the mint in coinage. Further, by 1795 it had loaned the government $6,200,000. In order to procure funds to repay the loan, the government by 1802 had sold all of its stock at a profit of $671,860, and while a shareholder had received $1,101,720 in dividends of $8\frac{3}{8}$ per cent.

On April 20, 1808, the stockholders memorialized Congress for a renewal of the charter which expired in 1811. A month later, Albert Gallatin, then Secretary of the Treasury, in a report to Congress enumerated the fiscal services of the Bank and advised that the charter be renewed with a few changes. Nevertheless, the bill to continue the charter was defeated, the

[1] Hamilton's report may be found printed in full in the *American State Papers*—Finance I., *pp*. 67–76.

[2] The Bank of North America founded in 1781, the Bank of Massachusetts in 1784, and the Bank of New York in 1784.

[3] Hamilton's plan closely followed the charter of the Bank of England as it existed at that time.

[4] The act provided for a capital of $10,000,000, of which one-fifth was to be subscribed by the government. The administration was placed in the hands of twenty-five directors elected annually by the shareholders. Branches were to be established where the directors saw fit. The circulation was not to exceed the capital. Statements of condition might be called for but not oftener than once a week by the Treasury Department.

[5] July 4th, 1791, at Philadelphia.

[6] Formerly, president of the Bank of North America.

opponents charging that the Bank was a "money trust" controlled by foreigners,[7] a tool in the hands of the Federalists, and that the act chartering the bank was unconstitutional—so the First United States Bank went out of existence on March 3, 1811.[8]

FINANCIAL CHAOS, 1811–1816

It was a most unfortunate time for the country, on the verge of a war with England, to be deprived of the services of the Bank. State banks sprang up on every hand to take its place. Their number increased from 88 in 1811 to 246 in 1816 and their circulation grew from 22.7 million dollars in 1811 to 100 millions six years later.[9] Such a rapid inflation of the currency resulted naturally in the depreciation of bank notes in terms of gold, amounting at the maximum to 23 per cent in Baltimore, and 16 per cent in Philadelphia and New York.[10]

The revenues of the government, consisting largely of tariff duties, were for the most part collected in this depreciated currency, while it was necessary for the nation to make large disbursements of funds in New England where specie payments had been maintained. By reason of this condition, it has been estimated that the government lost $5,000,000 from 1814 to 1817. Further, without the assistance of the Bank, the government had difficulty in selling its bonds (even when offered below par), and was forced to borrow sums from the state banks and to issue some 37 million dollars of "Treasury notes" which "ultimately degenerated into a kind of currency."[11] Writing in 1831, Gallatin stated that had the Bank been rechartered, the suspension might have been prevented and the state banks would have been restrained within proper bounds.

THE SECOND BANK OF THE UNITED STATES

As early as October 14, 1814, Secretary Dallas,[12] in a report submitted to Congress, called attention to the need for a National Bank, emphasizing the fact that such a bank could restore the depreciated currency to a gold parity and that in its fiscal relations with the Treasury would be of incalculable assistance. After seven unsuccessful attempts within two years, the charter of the Second Bank, closely resembling that of the First, was passed by Congress and became law on April 10, 1816.[13] Through an agreement with

[7] Though three-fourths of the stock was held abroad, the foreign shareholders exerted little control, as they were not allowed to vote through proxies.

[8] By 1834 the process of liquidating the assets had been completed, the shareholders receiving in all $434 for each $400 share. The assets of the parent bank in Philadelphia were purchased by Stephen A. Girard, which was reopened on May 12, 1812, as "Girard's Bank."

[9] This increase was due to two factors: (1) the suspension of specie payments everywhere during August of 1814 excepting in New England; and (2) to the withdrawal of the restraining influence of the Bank.

[10] The specie was either driven abroad or into the New England States.

[11] Willis, H.P., *American Banking*. 1918, *p.* 209.

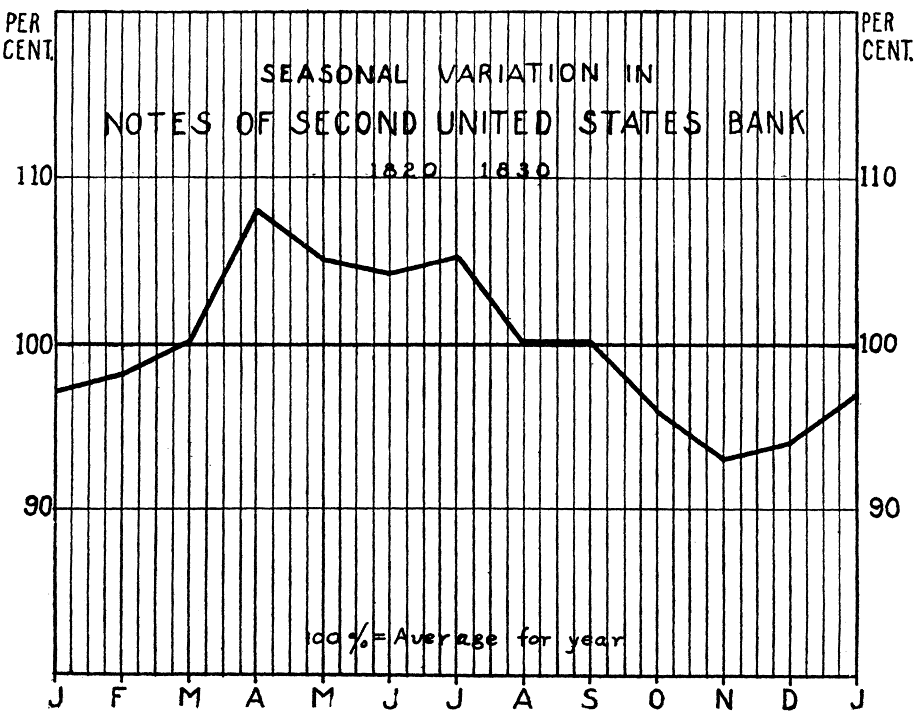
[12] Alexander J. Dallas from Pennsylvania, appointed Secretary of the Treasury, October 6, 1812.

[13] The act provided for a capital of $35,000,000, of which the government subscribed one-fifth. There were to be twenty-five directors, twenty of whom were to be elected annually by the shareholders and five appointed by the government. Branches were to be established wherever the Bank thought necessary, managed by from seven to thirteen directors appointed by the parent bank. The circulation was not to exceed the capital. Deposits of public funds were to be made in the Bank unless the Secretary of the Treasury should otherwise direct. The Bank was required to pay the government a bonus of $1,500,000 and to transfer public funds without charge. Weekly statements of condition might be called for and Congress was given the right to inspect the books of the Bank.

the state banks in the larger towns, the resumption of specie payments was brought about (nominally at least) by February 20, 1817, thus realizing the first purpose of the Bank. Due partly to governmental pressure and partly to a lack of banking training, the directors, at first, extended loans and rapidly increased the circulation, a policy which resulted in a heavy loss to the Bank and in the retirement of William Jones as president in January of 1819. Langdon Cheves, chosen as his successor, immediately inaugurated a policy of retrenchment and deflation. Under his management and later under that of Nicholas Biddle, the Bank became "the most powerful and best managed financial institution the country had ever seen."[14] Its notes, circulating from Montreal to Mexico City, were safe and elastic. In transferring and disbursing government funds, in furnishing domestic exchange, in paying the pensioners of the government, and in acting until 1833 as the sole depositary of public moneys, the Bank was of great service to the whole people.

In his first message to Congress, on December 8, 1829, President Jackson expressed doubts as to the constitutionality of the Bank and the soundness of its notes. The President's hostility subsequently cooled, but when the Whig party at Baltimore in 1831 took the side of the Bank, there ensued a long and bitter struggle which ended in the defeat of the attempt to recharter it. The reasons as given by Professor Catterall for this opposition were the "widespread belief that the Bank was unconstitutional, the hostility of the states, the opposition of the state banks, the rise of democracy,

CHART I



[14] Willis, H. P., *American Banking*. 1918, *p.* 210.

and the envy and hatred which the poor always feel for the rich."[15]

Upon the failure to recharter the Second Bank, the era of central banks, modelled after those existing in Europe, passed. Banking in America entered upon entirely different lines of development. In the years that followed, the government was to miss keenly the fiscal services of the Bank, and the people, no longer protected by its restraining influence on the note issues of the state banks, suffered severely from the resulting financial chaos.

THE INDEPENDENT TREASURY

From 1791 to 1811, the First Bank was utilized to a large extent as a depositary of government funds. After its charter had expired the government was forced to use the services of state banks, from whom no security was required for the moneys deposited, but by whom in accordance with an agreement enterëd into, weekly and monthly statements of condition were to be submitted to the Secretary of the Treasury. The use of state banks as depositaries proved so unsuccessful that it was provided, in the charter of the Second Bank, that it was to be the sole depositary except in such places where the Bank had no branches, or when the Secretary of the Treasury deemed it unwise to employ it as such. This latter provision of the act was taken advantage of in September of 1833 by Secretary Taney, who "ordered the collectors of revenue to cease depositing in the Bank of the United States and to employ designated state banks for that purpose."[16]

A contract was entered into between these banks (the so-called "pet banks") and the government, whereby they were required to give security for the funds deposited "whenever the deposits should exceed one-half the bank capital paid in,"[17] or whenever the government deemed it necessary. The banks agreed to perform for the government all of the fiscal services formerly rendered by the Bank of the United States, to render weekly reports, and to submit to examinations when the Secretary thought necessary. On June 23, 1836, an act was passed "to regulate the deposites of the public money" following closely the provisions of Taney's contracts.[18] In his annual message, September, 1837, Van Buren showed that the custody of the public funds by state banks had proved very unsatisfactory and urged that the government take care of its funds itself and require that all dues be paid in specie. While this suggestion was being considered, the public funds were left in the hands of the collecting officers and a few banks.

The bill creating the Independent Treasury, finally passed on July 4, 1840, was repealed on August 13, 1841, and was repassed on August 6,

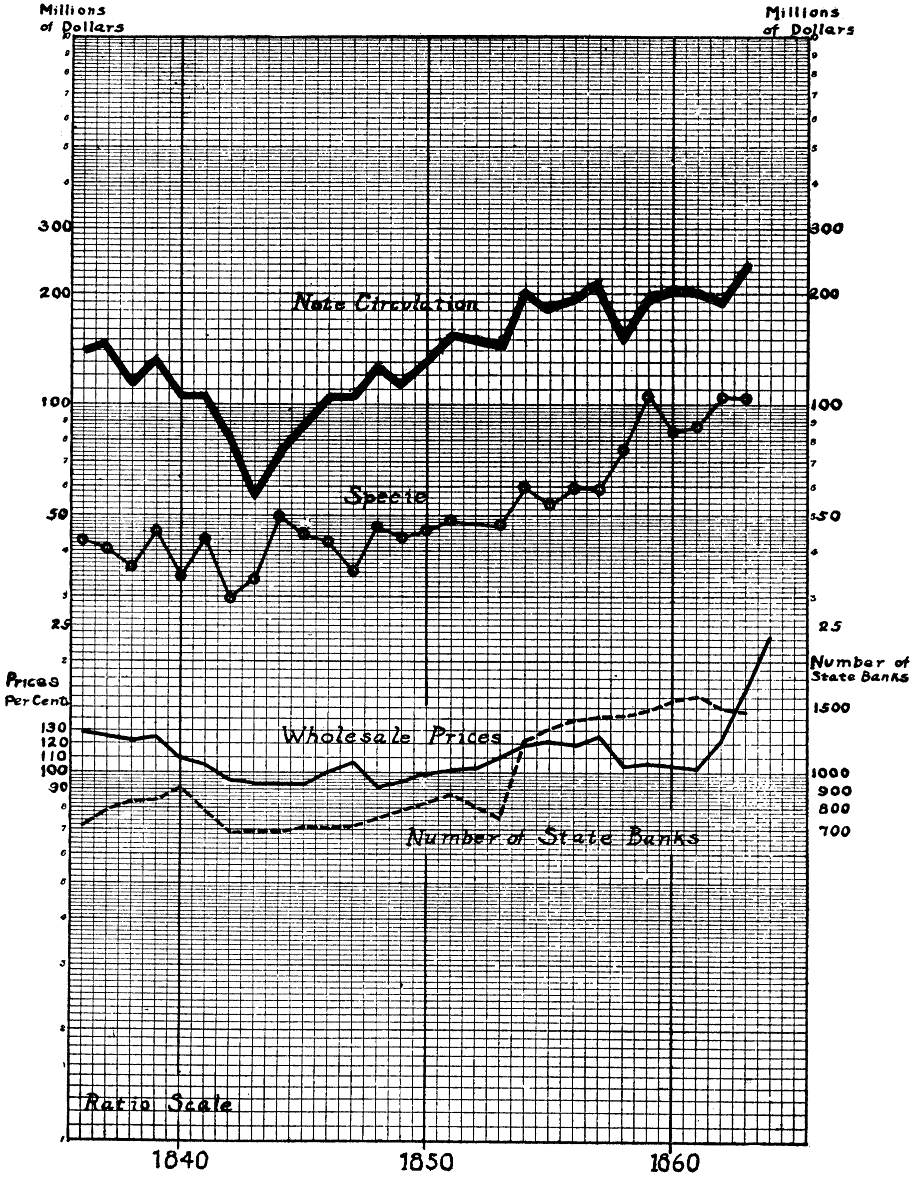
[15] Catterall, Ralph C. H., *The Second Bank of the United States*, p. 164.

[16] Kinley, David, *Independent Treasury*. 1910, *pp*. 26, 27.

[17] Kinley, David, *Independent Treasury*. 1910, *pp*. 26, 27.

[18] This act provided that the banks selected as depositaries must furnish the Secretary with a statement of their condition, a list of their directors, the current price of their stock and a copy of their charter. Further, the Secretary might examine the general accounts. Such banks must redeem their notes upon demand, and no bank issuing notes of a denomination of less than $5 was to be chosen. Collateral against the funds so deposited could be called for whenever the Secretary deemed this necessary, and must be called for if the deposits exceeded one-half the Bank's capital. In return for such deposits, the banks must render the government all the services and duties heretofore required of the Second Bank. It was further provided that if the government's deposits exceeded a fourth part of the Bank's capital for at least three months, interest at the rate of 2 per cent per annum must be paid on this excess.

CHART II
Statistics of State Banks, 1836–1863



1846.[19] The act provided that all receivers of public moneys must keep such funds as were received by them safely without loaning, using or depositing them in banks. Further, on and after June 1, 1847, all payments of taxes, duties, etc., to the United States must be made in gold or silver or Treasury notes. New York, Phila-

[19] The repeal of the act in 1840 necessitated a return to the use of state banks as depositaries, until the act was repassed.

delphia, Washington, Charleston, New Orleans and St. Louis were made the principal centers of deposit.

State Banks, 1836–1863

In the course of these years, "almost every type of banking system was attempted, and the result was the accumulation of a great fund of experience"[20] mostly as to the best way in which not to conduct banking. In New England and in New York the efforts to regulate banking through state and private means were much more successful than in the rest of the country. Thus, by an act passed in 1829, New York State endeavored to protect both the depositor and note holder by means of a safety fund which was built up by contributions from the banks and which was to be used to meet the obligations (excluding capital) of the failed banks. This scheme was not very successful until, beginning with 1842, the use of the fund was limited strictly to the redemption of the notes of failed banks. The notes of the banks organized under the Free Banking Law of 1838 in New York State were protected, not by the safety fund, but by deposits of certain specified bonds or mortgages with the state comptroller.

The success of the First and Second United States Banks led many states to charter banks modelled upon these. Among the more successful were the State Banks of Indiana, Louisiana and Ohio, but the Bank of the Commonwealth of Kentucky, the Banks of Alabama, of Mississippi, of Arkansas, of Illinois and the Union Bank of Florida ended in dismal failures, leaving the citizens with millions of dollars of unredeemed notes and worthless deposit accounts.

In the western and southern states, "due to the lack of public regulation, to the want of any uniform system—and to the significant fact that public opinion was both torpid and unintelligent,"[21] the losses to the people from poorly and dishonestly managed banks were enormous. Some of these banks were established by special charters, some, under the Free Banking Laws; few seemed to have been prudently or wisely managed. Some, called "wildcat" or "red-dog" banks, were located in remote sections, in order to keep their notes in circulation longer and render redemption more difficult. The lack of any uniformity in the bank notes, the failure adequately to protect them, and the absence of governmental control were among the motivating factors leading to the passage of the National Bank Act.

The National Banking System

The national banking system, resembling somewhat the free banking system of New York State, was recommended by Secretary Chase as early as December, 1861. After two defeats, due largely to the opposition of the state banks, the bill establishing the system became a law February 25, 1863; but in accordance with the recommendations of Mr. Hugh McCulloch, the first Comptroller of the Currency, it was completely revised and passed again on June 3, 1864.[22]

The predominating motive in Secre-

[20] Willis, H. P., *American Banking*, 1918, p. 212.

[21] White, Horace, *Money and Banking*. 1914, p. 331.

[22] The chief differences in these two bills were as follows:

1. The Act of 1863 required a smaller minimum of capital for a new bank than did the Act of 1864, and required that a smaller proportion be paid in before beginning business, and allowed a longer time for the payment of the remainder.

2. The Act of 1863 permitted loans on real as well as personal security.

3. The prohibition of issuing notes of a denomination less than $5 took place at once in the former act.

4. By the former act all national banks were

tary Chase's mind for the passage of the act was the establishment of a uniform currency. On January 1, 1862, there were in the United States, 1,496 banks issuing some 7,000 different kinds of circulating notes, "based on a great variety of securities, of different qualities and quantities,"[23] and some based on no security at all. The framers of the Act not only wished to rid the country of such conditions as these, but it was felt by many also that the issues of state bank notes were frequently redundant, were subjected to violent expansions and contractions, and were unequally distributed among the various states.[24]

The increased demand for bonds, which such a system would create, was to Secretary Chase a motive of secondary importance.[25] Additional advantages of the system, of course, were that such banks could act as depositaries of government funds, float loans, stimulate patriotism, and, because of being a national system, prevent future rebellions.

By the Act of 1864 the capital of the national banks was proportioned to the population as follows:

	Capital
Cities with a population of 6,000 or less	$50,000
Cities with a population of from 6,000 to 50,000	100,000
Cities with a population of 50,000 and above	200,000

of which 50 per cent was to be paid in cash before commencing business and the remainder within five months at a rate not less than 10 per cent per month.[26]

Each national bank was required to buy government registered bonds to an amount not less than $30,000 or less than one-third of the capital stock paid in. When such bonds had been deposited with the Treasurer of the United States, the national bank would be entitled to receive notes up to 90 per cent of the par or market value of the bonds whichever was the lower, but no bank was permitted to issue an amount of notes greater than its paid-in capital. Thus the circulation could at no time exceed the paid-in capital of all the banks, and in addition an absolute maximum of $300,000,000 was placed on the note issues. The notes were to be receivable at par in payment of all dues to the United States except for duties on imports, and to be paid out at par for all the debts of the United States except interest on the public debt, and in redemption of the national currency.[27]

It was further provided that national banks in the reserve cities must make arrangements to redeem their currency in New York City, and, simi-

required to maintain a reserve of 25 per cent against notes and deposits.

5. The Act of 1864 makes more complete provision for the conversion of state banks into national associations.

[23] Dewey, D. R., *Financial History of the United States.* 1918, *p.* 321.

[24] Chart II, brings out the first two points in a striking fashion.

[25] As a matter of fact, at the time of Lee's surrender, the bonds bought by the national banks to secure their circulation were less than 4 per cent of the total bonds floated by the government during the war.

[26] The Act made an error in not proportioning capital to the bank's liabilities instead of to the population of the town in which the bank happened to be located. The requirement that the capital be paid in cash was an effort to stop the vicious practice begun at the time the First Bank was chartered of allowing the shareholders to contribute their part of the capital in their own discounted notes.

[27] Inasmuch as the Loan Acts of March 3, 1863 and March 3, 1864, provided that both principal and interest be paid in coin, and the Loan Acts of February 25, 1862, June 30, 1864 and March 3, 1865, provided for the payment of the interest in coin, in order to help sustain the public credit, it was necessary, therefore, as specie payments were suspended from 1862 to 1879, that the government collect its import duties in gold in order to obtain a supply which could be used as required by the above acts,

larly, national banks in country towns must redeem their notes at some bank located in a reserve city.[28]

By an act passed on March 3, 1865, $150,000,000 of the national bank notes were to be apportioned among the national banks in the several states according to the respective populations, while the remainder was to be proportioned by the Secretary of the Treasury "having due regard to the existing banking capital, resources, and business of such States, Districts, and Territories."

State bank notes were forced out of circulation by a provision in the Revenue Act of March 3, 1865, levying a 10 per cent annual tax on the notes paid out after July 1, 1866.[29]

That the entrance of state banks into the system was slow at first, was due, according to Mr. McCulloch, to the fear on their part that the national banking system might be a repetition of the free banking system in its worst aspects. Up to November 25, 1864, only 168 state banks had entered the system, but with the retirement of the state bank notes in sight, only 244 remained out by the end of 1868, and 1,643 were members of the national banking system. An amendment to the National Bank Act passed on June 20, 1874, did away with the lawful money reserve which was formerly required to be held against the circulation, provided for the 5 per cent redemption fund, provided that hereafter banks would have to redeem their notes only at their own counters or at the Treasury Department, and also provided that a bank which wished to retire its circulation might withdraw the bonds deposited with the Treasurer of the United States, provided that lawful money to an equal amount be deposited to redeem the circulation still outstanding; but in no case should the amount of bonds on deposit for circulation be reduced below $50,000.[30] By the Resumption Act of January 14, 1875, the provisions in the former acts regarding the aggregate amount of national bank notes in circulation and their distribution were repealed.

From 1882, when the national bank notes in circulation touched the highest figure up to that time, 361 million dollars, the amount outstanding declined rapidly until in 1891 there were only 172 million dollars in circulation, and of this amount more than 50 millions were secured by lawful money. Naturally one would expect a bank's circulation to increase as the population grew and the nation's resources were developed, but it must be remembered that these bank notes based on government bonds were alone of their kind in the world, and as the yield on government bonds[31] was decreasing

[28] New York was the only central reserve city, whereas the reserve cities were St. Louis, Louisville, Chicago, Detroit, Milwaukee, New Orleans, Cincinnati, Cleveland, Pittsburg, Baltimore, Philadelphia, Boston, Albany, Leavenworth, San Francisco, Washington City, and later, Charleston and Richmond.

Banks in New York City were to keep on hand a 25 per cent lawful money reserve against both notes and deposits, while banks in the reserve cities were to keep a 25 per cent reserve but one-half of this might be deposited with a New York City bank. Banks in other towns must keep a reserve equal to 15 per cent, three-fifths of which could be kept on deposit with a bank in a New York or in any reserve city.

[29] State bank notes made their last appearance in the Treasury reports on July 1, 1876, when the circulation was $1,047,335.

[30] By the Act of July 12, 1882, banks with a capital of $150,000 or less were permitted to withdraw bonds, which they had deposited against their circulation, down to one-fourth of their capital, provided that they deposit enough lawful money to retire the notes not covered by bonds, but not more than $3,000,000 of National Bank notes were to be so retired in any one month. All bond requirements were repealed by the act of June 21, 1917.

[31] By reason of the steadily rising prices of the bonds.

throughout this period, it was no longer as profitable for the banks to take out notes, as the so-called double-profit had declined. From 1891 to 1899, the amount of national bank notes increased, due to the increased yield on government bonds, and to special demands for money during the panic of 1893.

THE GOLD STANDARD ACT OF 1900

This act derives its name from the fact that it provided that the dollar, consisting of twenty-five and eight-tenths grains of gold, nine-tenths fine, should be the standard unit of value, and all other forms of money should be maintained at a parity of value with the standard.[32]

The Act also allowed national banks with as small a capitalization as $25,000 to be formed in towns of 3,000 inhabitants or less.[33] This led to a rapid increase in the number of national banks from 3,583 in 1899 to 4,165 in 1901.

Though the notes to be issued by a national bank were at no time to exceed its paid-in capital, it was provided that they could be issued hereafter up to the full market or par value of the bonds deposited, whichever was the lower, instead of only up to 90 per cent of such value. The refunding of the 5 per cent bonds maturing in 1904, the 4 per cent maturing in 1907, and the 3 per cent maturing in 1908, representing a total amount of 839 million dollars, into 2 per cent bonds maturing in 1930, was provided. One purpose of this measure was to provide a basis for the bond-secured national bank notes by postponing the maturity of a large part of the public debt.[34] The tax on the notes issued remained at 1 per cent per annum if the bonds bore more than 2 per cent interest, but if they bore 2 per cent interest or less, this tax was reduced to one-half of 1 per cent.

Under the stimulus of the Act, especially by reason of allowing national banks to issue notes up to the par value of the bonds, and by reason of the increased yield of government bonds, the amount of notes in circulation increased rapidly from 332 million dollars in 1900 to 609 millions in 1907.

The Gold Standard Act of 1900 was not a constructive piece of legislation, as it did little else than modify slightly the technical details in the organization and operation of the national banks, and made no attempt to remedy any of the basic defects of our banking system.

THE PANIC OF 1907

Beginning with 1896, prices in the various gold standard nations, which had been falling for nearly a generation, began to turn upward. This change was due to an increase in the production of gold and use of money substitutes, and to the wasteful exploitation of the world's natural resources. The rise in the price level led to such a stimulation of industry that until 1907, aside from a local crisis in Germany in 1900 and the "rich man's panic" of 1903 in America, the period was one of general prosper-

[32] This act simply affirmed the gold standard which had really been established in the act of 1873 which demonetized the silver dollar.

[33] As established by the Act, the capital requirements were:

	Capital
In towns of less than 3,000	$25,000
In towns of 3,000 to 6,000	50,000
In towns of 6,000 to 50,000	100,000
In towns with more than 50,000 people	200,000

[34] Horace White has estimated that the loss to the government on additional interest paid by extending the maturity of these bonds amounted to $244 millions — a tremendous price to pay for an increase in circulation up to 1907 of only 277 millions of dollars. *Money and Banking*, Horace White. 1914, *p*. 406.

ity. This expansion in business and the resulting increase in speculation intensified the demand for capital. As the demand could not be met from the current savings of the people, commercial banks began to make larger and larger extensions of credit, a policy which resulted in progressively lower reserves and forced the banks to raise discount rates and curtail extensions of credit. This retrenchment was accompanied by a diminishing purchasing power on the part of the great mass of consumers, for wages lagged behind prices in the upward movement, forcing the sale of products at sacrifice prices. This condition checked the rise in the price level and brought on a period of depression throughout the world.

In America, as in the nations of Europe, prices, wages and interest rates rose one after the other. While this differential between prices and the cost of production lasted, the speculator optimistically capitalized the future earnings of industry, and the prices of stocks soared, reaching a peak in 1906. Toward the end of that year it was apparent that the demand for capital was such that borrowers had difficulty in being accommodated even though bank credits were strained to the limit. In January and February of 1907 large blocks of securities had to be sold to repay the loans previously procured from the London market through the drawing of finance bills. Prices of stocks fell steadily and crashed in March. After a slight recovery the market began to fall again in August and was still falling when the panic occurred.

In addition to the general causes of the world crisis of 1907, there were elements of weakness in the American banking system, reflected chiefly in the New York money market, which caused the crisis here to degenerate into a panic. One of the most significant facts in the development of American banking from 1896 to 1907 was the rapid growth of state banks and trust companies. State banks increased particularly throughout the West and South as the requirements of the state

TABLE A—GROWTH OF STATE BANKS AND TRUST COMPANIES, 1896, 1902, 1907

STATE BANKS

Year	Number	Capital (Millions)	Individual Deposits (Millions)	Cash Holdings (Millions)	Proportion of Cash to Deposits
1896	3,978	310.8	695.7	101.0	14.5%
1902	5,433	388.3	1,698.2	178.6	10.5
1907	10,352	664.2	3,068.6	254.0	8.3

TRUST COMPANIES

Year	Number	Capital (Millions)	Individual Deposits (Millions)	Cash Holdings (Millions)	Proportion of Cash to Deposits (National Bank Notes Included)
1896	257	173.5	586.5	26.8	4.6%
1902	636	329.6	1,525.9	31.9	2.1
1907	1,485	645.4	2,061.6	101.7	4.9

banking laws were less strict there than those of the National Bank Act. The greatest growth in trust companies occurred in the East, as there they were not subject to the same strict requirements as were state and national banks. The growth of these two types of banking institutions is shown in Table A on the preceding page.

As the proportion of cash to the individual deposits of state banks and trust companies, amounting to 8.3 per cent and 4.9 per cent respectively, in 1907, was woefully inadequate to meet a heavy drain, they carried balances with national banks which they planned to withdraw in time of an emergency. On August 22, 1907, they had 196.3 million dollars on deposit with the national banks in New York City. Though these deposits would surely be withdrawn during a crisis, the national banks in the performance of their functions as reserve agents, "did not build up reserves any larger than they would have carried had they been received from that class of conservative individuals who habitually maintain large balances with their banks."[35] Furthermore the national banks in New York City held a considerable porportion of the deposited reserves of the national banks located in the interior, amounting on August 22 to 213.8 million dollars.[36] Against the certainty of having the bankers' balances withdrawn during a crisis, the New York banks maintained the ridiculously low cash reserve of 224 million dollars in 1906 (though this was slightly above the legal minimum) against total deposits (including those made by the government) of 1,162 millions, of which at least a half consisted of bankers' balances. That they would be unable to meet heavy withdrawals during a crisis, a time when banks ought to increase their loans to save the solvent but temporarily embarrassed borrower, is obvious.

Moreover, the Secretary of Treasury, Leslie M. Shaw, encouraged other unsound banking practices by a series of innovations which he introduced from 1902 to 1907. Among the more radical of his changes, was the exemption of national banks from the maintenance of a cash reserve against government deposits, the acceptance of other than United States bonds as securities for government deposits, the depositing of government funds where money seemed tight, and the artificial stimulation of gold imports.

The cause directly leading to the panic was the announcement, on October 21, 1907, by the National Bank of Commerce of New York that it would no longer clear for the Knickerbocker Trust Company, whose management was under suspicion. This action precipitated a run on the Trust Company, which was forced to suspend the following day after paying out eight million dollars. Immediately, the alarm spread throughout the land, a wild scramble for money ensued, banks and individuals hastened to withdraw their funds from the New York City banks, and the panic was on. The New York City banks being ill prepared to meet these heavy withdrawals were forced to suspend cash payments on October 26. The rest of the country immediately followed their example.

THE DEFECTS IN THE AMERICAN BANKING SYSTEM AS REVEALED IN THE PANIC OF 1907

One of the most serious of these defects was the rigidity and immobility of the reserves. The proportion of reserves to be held by national banks against their deposits were definitely

[35] Sprague, O. M. W., *History of Crises Under the National Banking System.* 1910, p. 226.
[36] See footnote 37.

fixed by statute.[37] In compliance with the provisions of the Act, on August 22, 1907, national banks held cash and deposited reserves as shown in Table B.

The provision allowing a certain proportion of the reserves to consist of balances with other banks was intended to provide the interior banks with exchange to sell on New York and other important commercial centers. However praiseworthy this intention might be, the provision led to a pyramiding of reserves, so that our credit structure represented an inverted pyramid with a relatively small cash apex in New York City. In fact, of the reserves deposited with national banks in central reserve cities, more than two-thirds were held by the banks in New York City. In August of 1907 they held cash reserves against these bankers' balances amounting to 26.5 per cent, and, as was customary, had loaned a large part of the remainder to brokers, as call loans, which they felt were the most liquid form, in the absence of a general discount market. The capacity of the interior banks to meet their depositors' demands during a panic depended in part upon their ability to withdraw the funds which they had deposited with their New York reserve agent. But the New York banks were unable to meet heavy drains of cash, due to the insufficiency of their reserves, and the unliquid character of call loans, secured by stocks and bonds, during a panic when the prices of securities were tumbling. Far from being able to repay his loans, the broker needed additional help from bankers at such a time.[38]

TABLE B—CASH AND DEPOSITED RESERVES OF NATIONAL BANKS, AUGUST 22, 1907

	Number of Banks	Deposits (millions)	Cash Reserves (millions)	Deposited Reserves (millions)
Central Reserve Cities	60	$1,205.5	$315.5	....
Reserve Cities........	306	1,423.4	196.6	$165.7
Others..............	6,178	2,627.2	216.8	226.7
Total.............	6,544	$5,256.1	$728.9	$392.4

Percentage of cash reserves against deposits = 13.87%.

Realizing that it might be impossible, during a panic, to withdraw their deposited funds, national banks placed great dependence upon their cash reserves to meet the emergency. But these, scattered as they were in 1907 among 6,429 banks, were ineffective in allaying the panic. When the financial storm broke each little bank endeavored to strengthen and to guard its own reserve against withdrawals, as there was no established agency

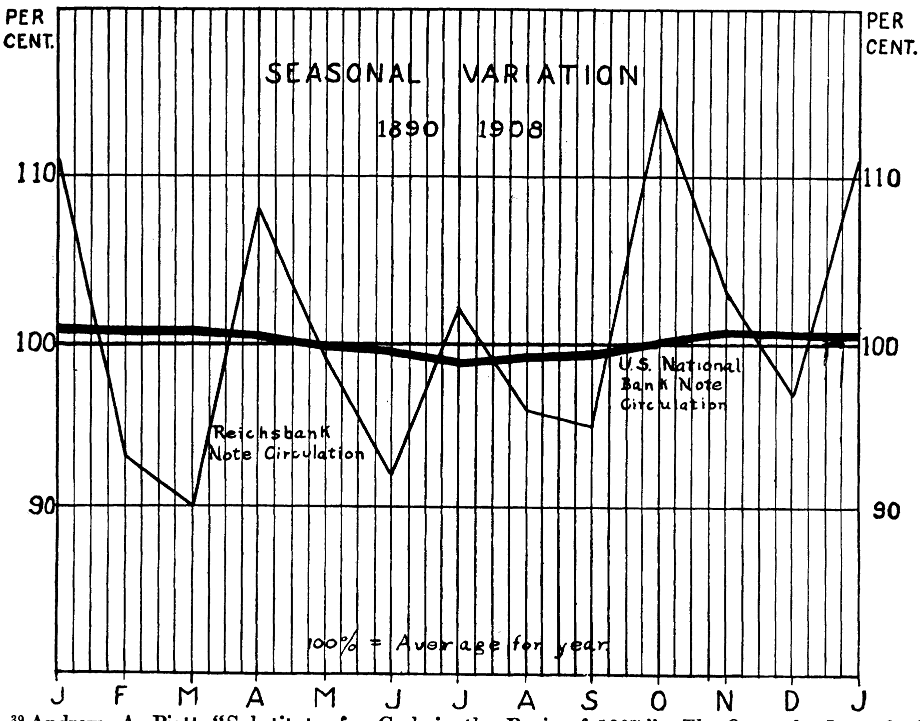
[37] The provisions were, that national banks in New York City, St. Louis and Chicago (known as the central reserve cities) must keep a lawful money reserve of 25 per cent against their deposits; that national banks in some forty-seven other large towns (reserve cities) must maintain a 25 per cent reserve but one-half of this might be deposited with a national bank in a central reserve city; all other national banks were to maintain a 15 per cent reserve but three-fifths of this might be deposited with national banks in reserve or central reserve cities.

[38] Prof. Sprague finds that out of a total loan increase by the national banks in New York City between August 22 and December 3, 1907 of sixty-three million dollars, call loans account for fifty-four million dollars.—*History of Crises Under the National Banking System*, p. 301.

which would grant it aid through the extension of loans or the discounting of its paper. Once the reserve had fallen to the legal minimum, the bank was not expected to extend any further accommodation to its customers. The cash reserves of national banks, though large in the aggregate, were so scattered, hoarded and immobile as to be ineffective during a time of financial difficulty.

Another defect in our banking system revealed in 1907, as in every other panic, was the inelasticity of the national bank notes. An elastic currency should expand to meet seasonal and cyclical demands for money, and when these demands have been satisfied, should contract. Cyclical demands occur at the time of a crisis, for then business confidence is at a low ebb and money, rather than credit instruments, is demanded as a medium of exchange. The suspension of specie payments, following the failure of the Knickerbocker Trust Company resulted in a premium on currency ranging as high as 4 per cent. The Honorable A. Piatt Andrew has estimated that to meet the demands for money, 334 million dollars of currency substitutes were issued, including clearing house loan certificates and checks, cashiers' checks and manufacturers' pay checks.[39] Our bank notes did not begin to increase until the first part of November and by the first of the year had increased by only fifty-four million dollars. The reason is found in the time it took to buy the necessary bonds and to comply with the governmental red tape.

CHART III



[39] Andrew, A. Piatt, "Substitutes for Cash in the Panic of 1907." *The Quarterly Journal of Economics*, August, 1908.

Seasonal demands for money arise from periodically recurring needs, such as the demands of the farmers for money each fall to harvest and market their crops. As the national bank notes failed to expand, the interior banks secured much of the money needed by withdrawing their deposits from the New York banks. To the extent that the New York banks met this demand with lawful money, their reserves were lowered, necessitating a contraction of loans and forcing up interest rates. Chart III showing the seasonal variations (with secular and cyclical tendencies removed) in the national bank notes and the notes issued by the Reichsbank, illustrates in a striking fashion the inelasticity of the former.

Such powers of expansion and contraction as the national bank notes possessed, depended upon the yield of government bonds, for should this increase, the double profit would rise and it would become profitable for banks to force the notes into circulation.[40]

The seasonal movements of currency into and out of the New York City banks, producing a dearth of money at one time and a plethora at another, caused interest rates to vary from artificially low levels to abnormally high. Thus the average weekly low call money rate from 1890 to 1908 was 2.31 per cent, occurring in the second week of June, while the average high, was 7.38 per cent,[41] occurring in the fourth week of December. Had the seasonal demands been met, as was true on the Continent, by an actual increase in the amount of currency, instead of by shifting funds from one section to another, and had this currency contracted, once the need was satisfied, interest rates could have been fairly stabilized. Furthermore, due to the immobility of reserves, and the concentration of banking capital in the East, there were considerable sectional disparities in interest rates which could not be eliminated without central reserve banks.

From time to time, the government endeavored to extend relief to the banks in order to counteract the evils in our banking system. The innovations of Secretary Shaw have been noted. Mr. George B. Cortelyou, his successor, continued this policy. After the panic had begun, he transferred to the national banks in New York City (from October 21 to October 31) nearly thirty-eight million dollars to help them meet their withdrawals. Later he offered for sale 150 million dollars of bonds to stimulate the issue of national bank notes. The government had to choose between interfering in the money market in this way or keeping its funds locked up in the subtreasuries. This latter policy would have had the effect of making the currency redundant at the time the government made disbursements and scarce when its taxes were collected.[42]

[40] See pages 8 and 9 for a further illustration of this point.

[41] Kemmerer, E. W., *Seasonal Variations in the Relative Demand for Money and Capital in the United States.*—1910, *p.* 15.

[42] The Act passed in February 25, 1863 establishing the national banking system amended the Independent Treasury Act so as to allow national banks designated by the Secretary of the Treasury to be depositaries of public funds, except receipts from customs. These banks were required to give security by the "deposit of United States bonds and otherwise." By an act passed on March 3, 1901 the Secretary of the Treasury was expected to "distribute the deposits herein—so far as practicable equitably between different States and sections." Secretary Shaw, in 1903, began to accept other than United States bonds from the banks against government deposits, interpreting the words "and otherwise" to mean "or otherwise." By the Act of March 4, 1907 it was provided that receipts from customs might be placed in designated depositaries.

Of course such policies as introduced by Secretary Shaw were but palliatives for the situation and could not by themselves remedy the defects of our banking system.

EFFORTS AT REFORM

It was imperative that the defects in our currency and banking systems should be remedied, if the nation were to escape the disaster, humiliation and ruin of recurring panics. The members of the American Bankers Association were among the first to realize the necessity for reformation, and endorsed, at a meeting held in Baltimore in 1894, a plan of reform known thereafter as the "Baltimore Plan." This plan proposed that government bonds be eliminated as security for national bank notes, and provided for their issue on much the same conditions that govern the issue of the Canadian bank notes.[43]

About the same time in a report to Congress, Mr. John G. Carlisle, Secretary of the Treasury from 1893 to 1897, proposed a plan of reform resembling in its main outlines the Baltimore Plan, but with the addition that the provisions in the National Bank Act requiring banks to maintain a reserve against deposits be repealed.[44]

On November 18, 1896, a resolution was adopted by the Board of Governors of the Indianapolis Board of Trade inviting representatives from the boards of trade of sixteen middle western cities to assemble at Indianapolis in December of 1896 "for the purpose of considering the advisability of calling a larger conference,—to consider the propriety of creating a non-partisan commission, to which shall be assigned the duty of formulating a plan for the reform of our currency system."[45]

Representatives from the boards of trade and similar commercial bodies of eleven of the cities invited attended this preliminary conference and issued a call for a non-partisan monetary convention of business men to convene at Indianapolis on January 12, 1897. Delegates from twenty-six states and the District of Columbia attended the convention, at which it was unanimously agreed that an executive committee of fifteen be appointed which would endeavor to procure at the next session of Congress legislation for the appointment of a Monetary Commission by the President, to consider the entire question of currency and banking reform. In case this effort failed it was provided that the executive committee should

[43] The "Baltimore plan" proposed that government bonds be eliminated as security for bank notes and provided that each National Bank be allowed to issue notes up to 50 per cent of its paid-up, unimpaired capital subject to a tax of one-half of one per cent per annum on the average amount of notes outstanding, and further that an additional circulation, known as emergency currency, equal to 25 per cent of the bank's paid-up unimpaired capital be allowed subject to a heavier tax. Each bank issuing notes was to contribute an amount to a central guarantee fund equal to 5 per cent of its notes in circulation, from which the notes of failed banks were to be paid. If the fund were not sufficiently large for this, the remainder of the notes were to be redeemed from the assets of the failed bank. A 5 per cent redemption fund was to be maintained as at present.

[44] Carlisle's plan closely followed the Baltimore plan, but differed in this respect that in addition to the 5 per cent guaranty fund, he would require each national bank issuing notes to maintain 30 per cent lawful money reserve, consisting of United States notes including the Treasury notes of 1890, against the notes issued. State banks were to be allowed to issue notes in accordance with these provisions. He also proposed that the provisions in the National Banking Act requiring a bank to maintain reserves against deposits be repealed.

[45] *Report of the Monetary Commission of the Indianapolis Convention, Chicago.*—The University of Chicago Press, 1898. *p.* 5.

select eleven men to make a thorough investigation of the monetary needs of the country. The Commission of Eleven was appointed and held their first meeting on September 22, 1897, in Washington. After a series of conferences lasting through the fall, a preliminary report was adopted on December 17, while the preparation of the final report was entrusted to J. Laurence Laughlin, a member of the Commission. This report was completed by April of 1898. The preliminary report simply states the Commission's plan of reform, while the final report deals in an exhaustive way with the subject of money and banking from a theoretical, historical and statistical standpoint, and is a noteworthy contribution to economics.

After advising that the existing gold standard be maintained the Commission proposed that national banks be allowed to issue notes up to the amount of their paid-up unimpaired capital, exclusive of so much as is invested in real estate. For the first five years after the passage of the proposed measure, the notes issued up to 25 per cent of a bank's capital were to be secured by government bonds, but thereafter the amount of bonds required to be deposited, before notes might be issued, was to be reduced by one-fifth each year. The notes issued in excess of 60 per cent of the capital and not in excess of 80 per cent were to be taxed at the rate of 2 per cent per annum, while those issued in excess of 80 per cent were to be taxed at the rate of 6 per cent per annum. In order to protect the noteholders from loss, each bank was to contribute to a guaranty fund an amount in gold equal to 5 per cent of its circulation, from which the notes of failed banks were to be paid. In case that the fund became impaired, by reason of payments made to redeem the notes, the Comptroller of the Currency was authorized to make an assessment upon all banks in proportion to their circulation. The present 5 per cent gold redemption fund was to continue.

The plan for banking reform included the proposals that the present reserve requirements be maintained against deposits with the exception that one-fourth of the reserves required should be held in coin in the vaults of the bank. The establishment of branch banks was provided for in case the Comptroller of the Currency approved. It was further recommended that the organization of national banks in towns of 4,000 or less with a minimum capital of $25,000 be permitted.

The Commission's proposals would have provided America with a safe and elastic currency, but would not have remedied any of the other defects of our banking system. These could not be removed by a modification of the then existing system, but required the introduction of central reserve banks. The work of the Commission is valuable, not because of its immediate effect upon legislation, but for the reason that it awakened the public conscience to the necessity of banking and monetary reform, and paved the way for the final reformatory measures.